Listing of Claims

This listing of claims will replace all prior versions, and listings of claims in the application.

1-8. (Cancelled)

9. (Currently Amended) A composition for use in reverse transcription of a nucleic acid molecule, said composition comprising one or more purified polypeptides having reverse transcriptase activity, Mg^{2+} or salt thereof and dNTPs in excess of said Mg^{2+} or salt thereof, thereby preventing, reducing, substantially reducing, or eliminating degradation of nucleic acid templates during nucleic acid synthesis.

10. (Cancelled)

11. (Cancelled)

12. (Previously Presented) The composition of claim 9, wherein said polypeptides are selected from the group comprising M-MLV reverse transcriptase, ASV reverse transcriptase, HIV reverse transcriptase, Avian Sarcoma-Leukosis Virus (ASLV) reverse transcriptase, Rous Sarcoma Virus (RSV) reverse transcriptase, Avian Myeloblastosis Virus (AMV) reverse transcriptase, Avian Erythroblastosis Virus (AEV) Helper Virus MCAV reverse transcriptase, Avian Myelocytomatosis Virus MC29 Helper Virus MCAV reverse transcriptase, Avian Reticuloendotheliosis Virus (REV-T) Helper Virus REVA reverse transcriptase, Avian Sarcoma Virus UR2 Helper Virus UR2AV reverse transcriptase, Avian Sarcoma Virus Y73 Helper Virus YAV reverse transcriptase, Rous Associated Virus (RAV) reverse transcriptase, and Myeloblastosis Associated Virus (MAV) reverse transcriptase and or mutants thereof.

13. (Currently Amended) A method for reverse transcription of one or more nucleic acid molecules comprising:

(a) mixing one or more RNA templates, one or more purified polypeptides having reverse transcriptase activity, Mg^{2+} or salt thereof and dNTPs in excess of said Mg^{2+} or salt thereof; and

(b) incubating mixture of (a) under conditions sufficient to make one or more first DNA molecules complementary to all or a portion of said one or more RNA templates.

14. (Previously Presented) The method of claim 13, wherein said RNA template is a messenger RNA molecule, a poly A+ RNA molecule, or a population of mRNA molecules.

15-16. (Cancelled)

17. (Previously Presented) A cDNA molecule made according to the method of claim 13.

18. (Cancelled)

19. (Currently Amended) A method for amplifying one or more nucleic acid molecules, said method comprising:

(a) mixing one or more RNA templates, one or more purified polypeptides having reverse transcriptase activity, one or more DNA polymerases, Mg^{2+} or salt thereof and dNTPs in excess of said Mg^{2+} or salt thereof; and

(b) incubating mixture of (a) under conditions sufficient to amplify one or more nucleic acid molecules complementary to all or a portion of said one or more RNA templates.

20. (Previously Presented) A nucleic acid molecule amplified according to the method of claim 19.

21. (Currently Amended) A kit for use in reverse transcription, or amplification of a nucleic acid molecule, said kit comprising a purified reverse transcriptase, Mg^{2+} or salt thereof and dNTPs in excess of said Mg^{2+} or salt thereof.

22-25. (Cancelled)

26. (Previously Presented) The composition of claim 9, wherein said dNTPs are in excess of said Mg^{2+} or salt thereof by 1mM.